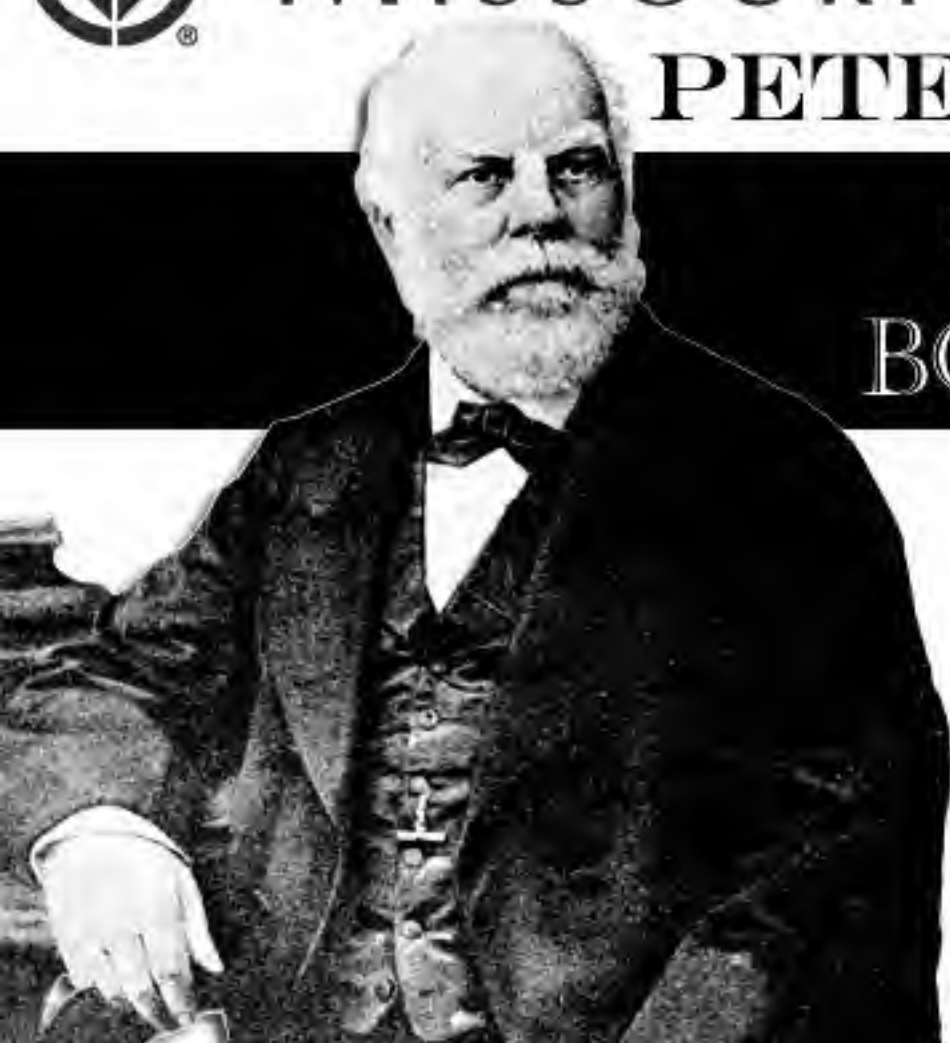




MISSOURI BOTANICAL GARDEN PETER H. RAVEN

GEORGE ENGELMANN
BOTANICAL



*Since
page
online
nu*

21

16-6-

E. glaberrima Klotzsch in Bot.
Herald!

Sierra Madre N.W. Mexico
Seemann

496-7



0 1 2 3 4 5 6 7 8 9 10

cm

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0

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cm

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"Euph. thyrsifolia"

Rottler leg
1798

in ~~Porto~~ Trauguebar

ex hb. Sprenger in hb. reg. Monac
is the same as *P. u. lag. in du*

Sem. ex sculptis

one form is quite glabrous
another with some loose hair
on the stem. I can see
no other difference



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cm

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cm

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21 1128 *E. nilagirica* Mig. 17
 Ind or. Mont Nilagiri
 ed. Hohenacker



cauma punctata glaberrima (emarginatis
 foliis oblongo-ovatis obtusis, valde
 obliquis subcordatis, serratis
 stipulis salicinis, multifloris, lacini-
 ficatis
 glomerulis latissimis, femineis
 glandulis punctatis angustis
 styli brevibus breviter bifidis
 capsulis coriis acute angulatis
 papinis
 seminibus ovatis acutiusculis
 leviter tuberculato-nodatis
 exsculptis s. subglabris laevibus



0 1 2 3 4 5 6 7 8 9 10

cm

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Euph. inaequilatera Louder
 Cap. l. Sp.
 can not be distinguished from
 this — and also approaching
E. setigera, — unite both
 ?

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cm

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flower

in longum

1133. *Euph. intermedius* Hochstett.

W. itis 1842

Hesperis

cauma diffusa n. prostrata, glaberrima
foliis e basi obtusis, valde oblique
ovatis obtusis, versus apicem
acutis serratis.

stipulis subulatis serratis,
anthodis in glomerulos latentes
paucifloros foliosos congestis;
involucris campanulatis tubulosis
glabulis compressis bilabatis
appressis minutis dentatis,
stylis breviter ad mid. bifidis
ovariis subaequalibus long. itig.
^{sub}glaberrimis

capsula acutis angulata



0 1 2 3 4 5 6 7 8 9 10

cm

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seemly ovate acute angulate
impresso punctatis (rugosique)
obovatis

Single sp. before me, with
sorb 6 inch long; leaves
3-5 l. long $\frac{1}{2}$ $\frac{3}{4}$ l. wide,
involucrum $\frac{1}{2}$ l. long, seed
fully 0.6 or more l. long
deeply punctate, reticulate
& impressed, sometimes running
together; column dark gray
reddish or dark gray



0 1 2 3 4 5 6 7 8 9 10

cm

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28. aa

E. Petersii n. sp. $\frac{30}{11}$

Mexican legume

Dr. Peters



= Bothe

= Gumbel?



= Hb. v. g.

Peru

glabrescens, ramulis puberulis
prostratis annua

foliis carnosulis, ovatis
integris s. subdentatis glabris
stipulis

glomerulis foliaceis lateralibus
anthodis campanulatis
glauco-lanceolatis apice inciso-dentatis

caps. acutiusculis

sem. parvis angulatis scabulis

habit of a small E. Chaneyi
to which the flowers resemble
or also ~~resemble~~

Klopf. names it E. callitrichoides
- Peters, Peru but the seeds are
quite different and also very thin, also
over



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cm

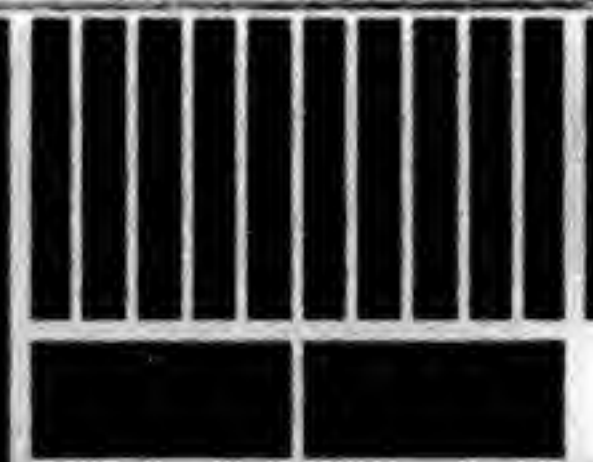
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rather close to *Granuleta*

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cm

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28a

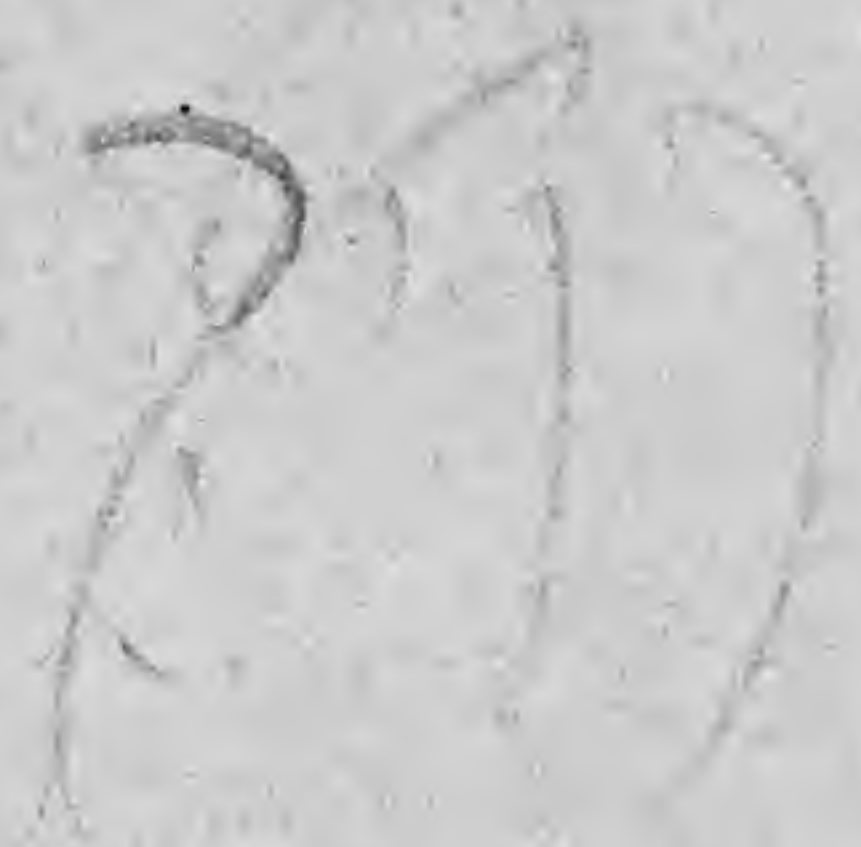
$\frac{1}{12}$

Euphorbia Botthe J. Gay
p. villosa

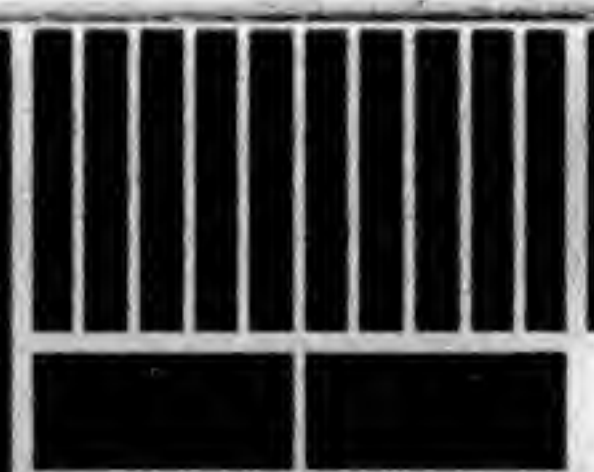
Aegypt infer.

Twisted leg

(Hb. Gay)



very similar to the glabrous form
leaves less serrate, sometimes
entire,
involucrum & caps. hairy
seed a little narrower



0 1 2 3 4 5 6 7 8 9 10

cm

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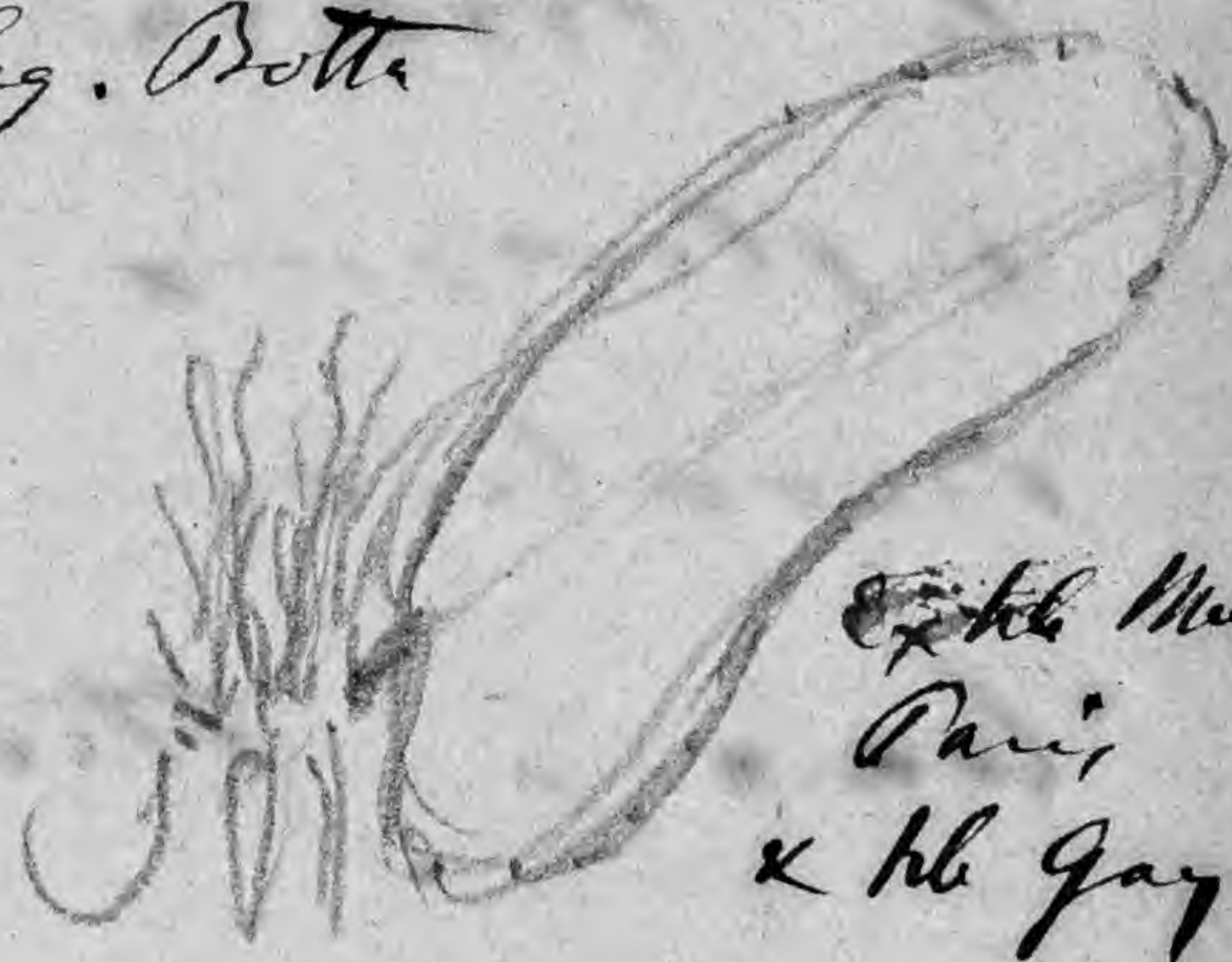
cm

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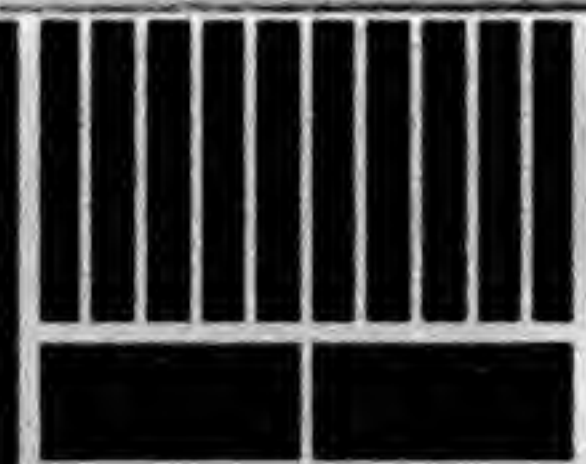
28a

a form of *granulata* $\frac{1}{12}$ Euph. Botte J. Gay Miss!
- hb sueTaifa, Arabia, *d. glaberrima*
leg. BotteE. hb Mus
Paris
x hb Gayanthera diffusum, habitus Euphorb.
chamaesyce - glaberrimafoliis oblongis obtusiusculis
basi supra protractis valde obliquis
subdentatis.stipulis linearibus
puberulis laciniatisantheris alaribus et in glomeris
laxis foliosis autem

involucris campanulatis

glabris appendiculatis, app. alb.
dentat

Styl

caps. acuta angulatis
seminibus albidis, acutis, acutis
canaliculatis angulatis, faciebus
undulatis - exsertis
ovariis

0 1 2 3 4 5 6 7 8 9 10

cm

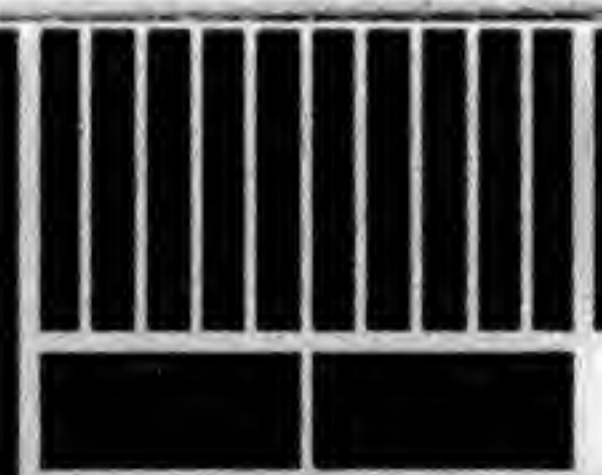
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form of seed refers this spec
to Forskale

inflorescence and form of
involucres to Chamisso
leaves those of Peplis

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0 1 2 3 4 5 6 7 8 9 10

cm

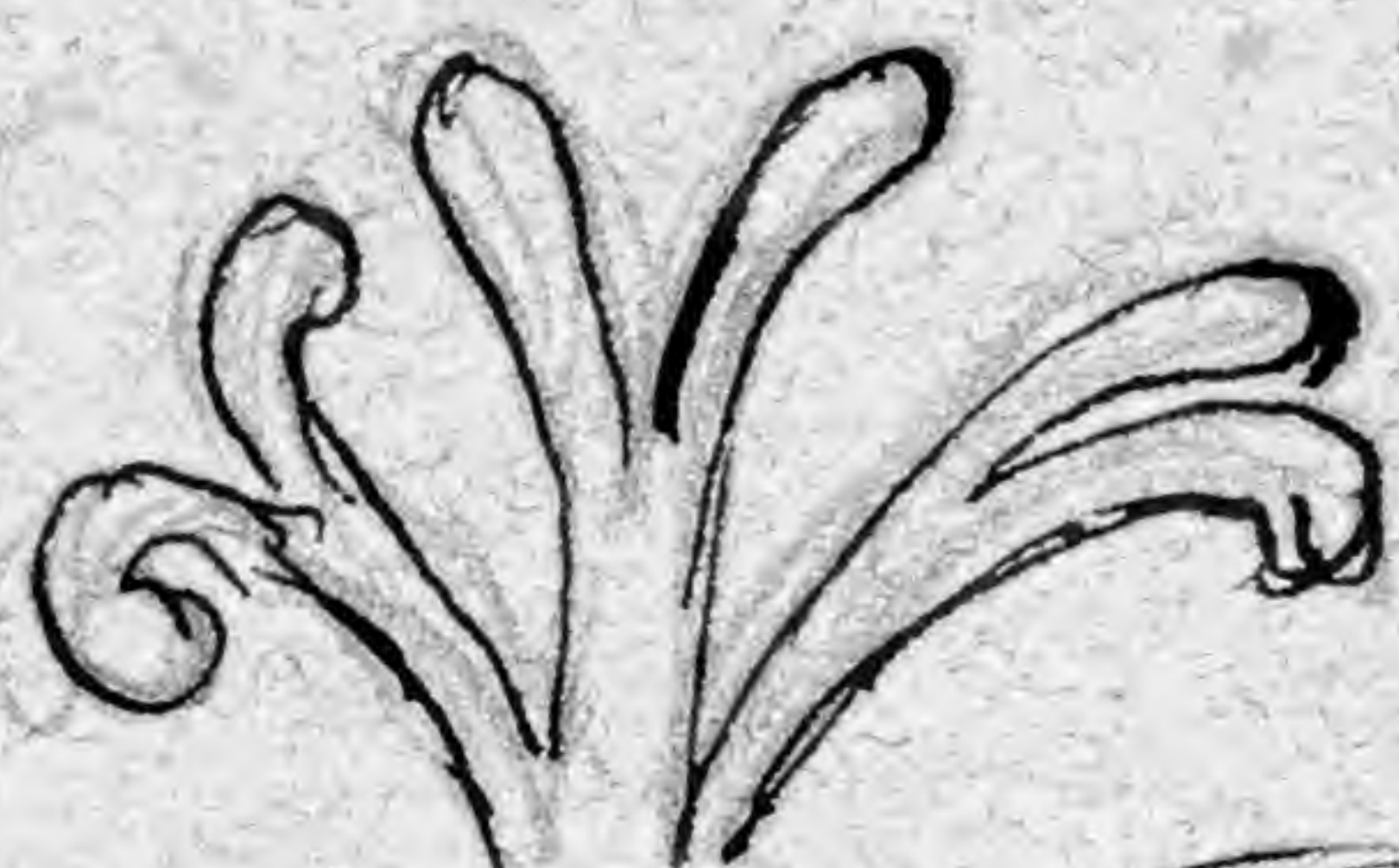
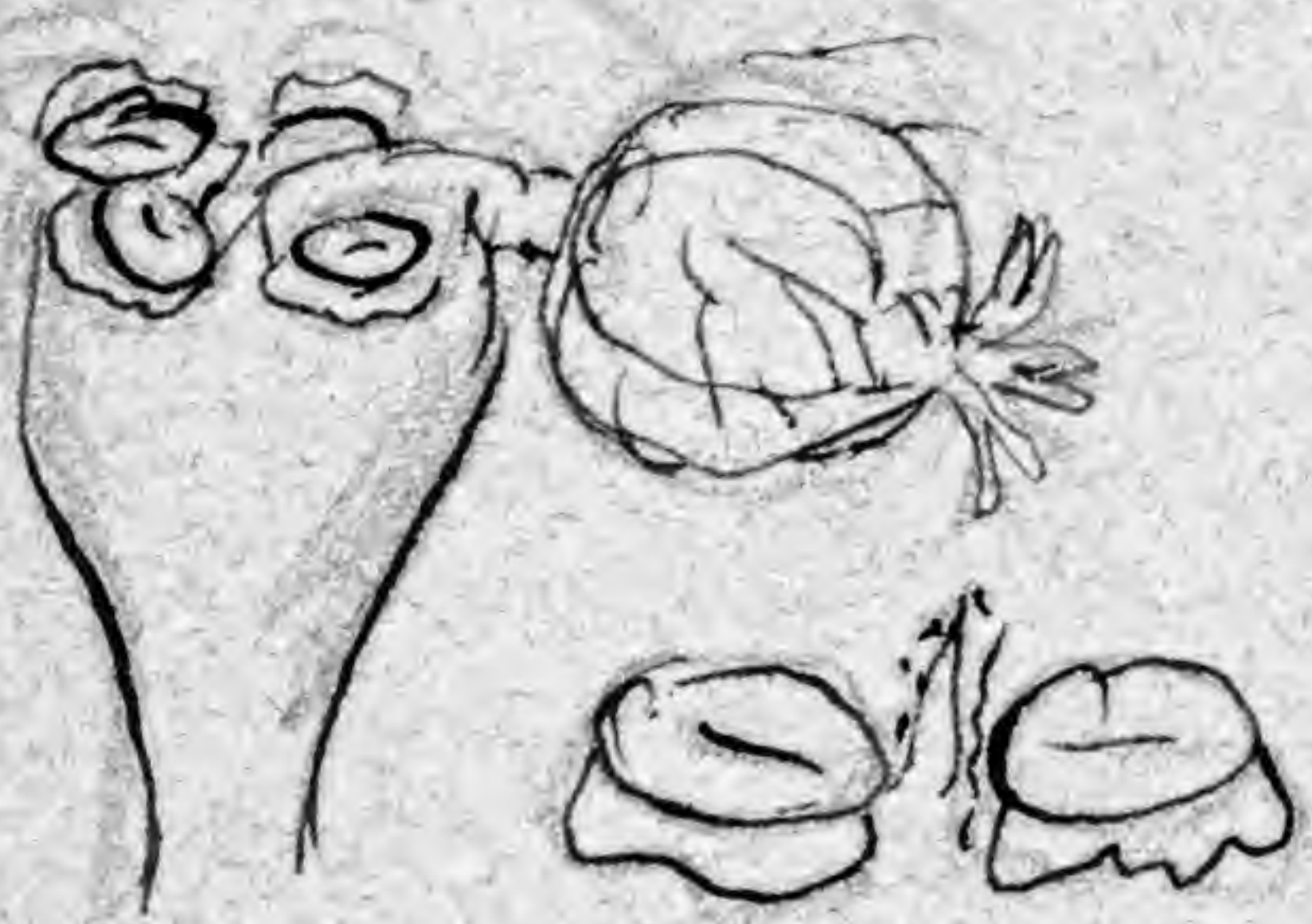
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28.6

Forskale



ob.

Ceph.

Plumier, 368 Abyssinici 1854

anthera protracta plurimae pubescent

glaberrima;

foliis, obovatis, oblongis, obtusis, sub-

dentatis, rhagimoidibus

stipulis integris (subulatis, mucroli-
pilosus

glomerulis congestis, latenti-
bus

involucris turbinatis, nudis

glabris,

glabris nudis, anguste apiculatis

stylis patulis, divaricatis ad nudum



0 1 2 3 4 5 6 7 8 9 10

cm

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bifidis; ovario caesoso
 subcylindricis
 (cap.) angulatis pubescentibus
 sem. acutis angulatis transversis
 rugoso-cubulatis punctatis
 exsculptis

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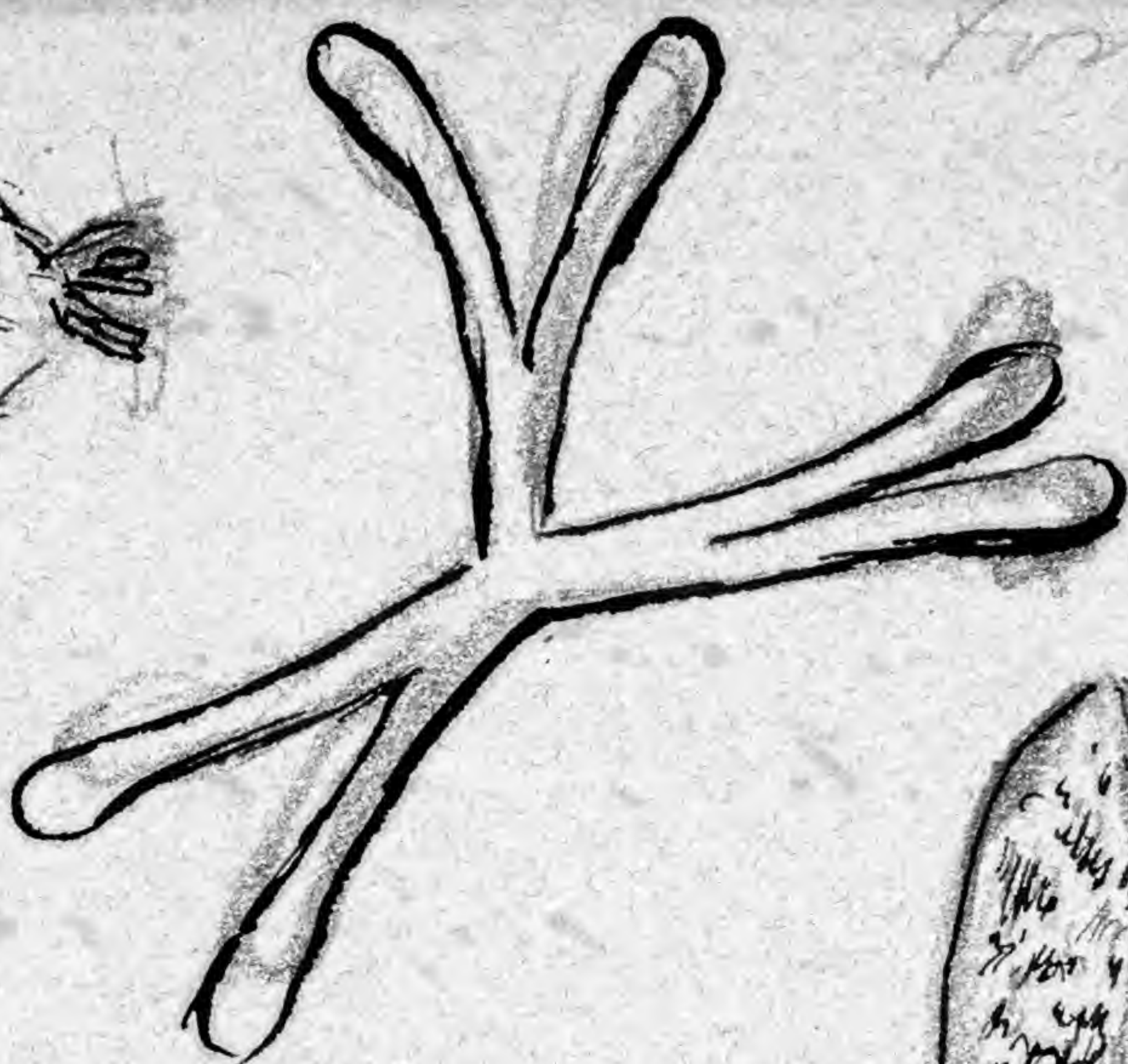
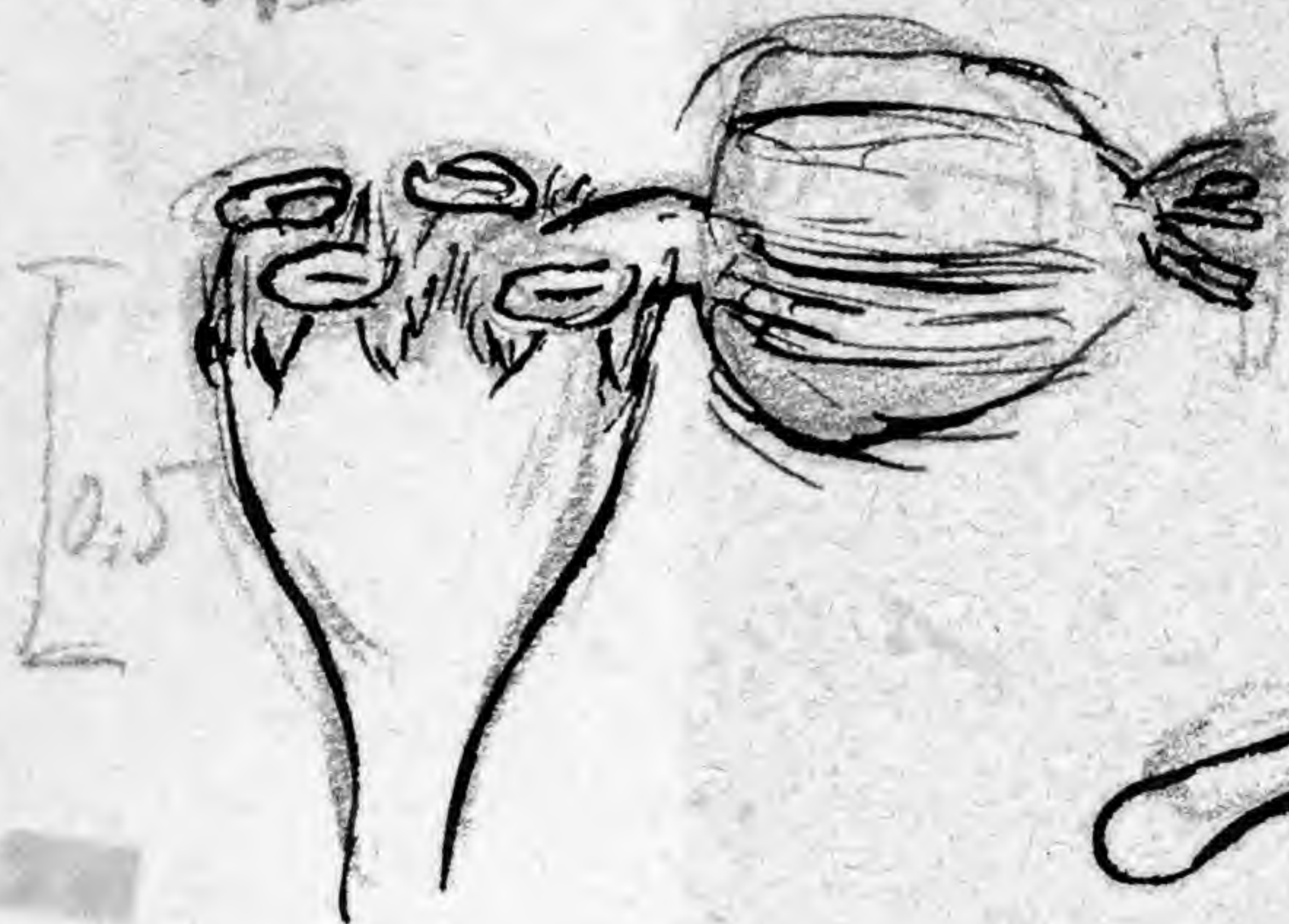
cm

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285

Forsk. Kadi



0.65



anthodium at the
place of the gland, lateral!

Sijene, Sieber



gland representing
anthodium
see above

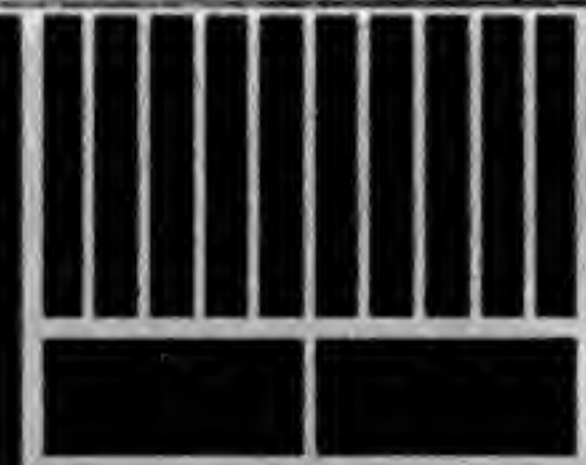


Avisko, Marsh

" Loph. thyrsifolia Forsk

" Sijene " Sieber

anthera diffusa, pubescent (at least)
foliis oblongis, basi oblongis, obtusis,
parvis dentatis, serratis, s. integris,
supra nudis
glomerulis foliis lateralibus
in volucribus puberulis



0 1 2 3 4 5 6 7 8 9 10

cm

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6989

Prostrate, branching a foot long
or more; leaves 1-5 l. long
1-2 broad;

Involucre about $\frac{1}{2}$ l. by with
very small glands; ^{or over; rather}
seeds ~~are~~ 0.6 l. by narrower
—, sharp angled —

Note: an axillate gland (gland) observed behind the stipule of that side, where (in the axill of the leaf) a branch is observed. — On the same place an involucrum is placed in other parts of same branch.

The plant of *Ariske*, coll. by Marsh
is entirely the same, but styles larger, still
more deeply lobed, recurved, stigma reflex;
seed more ^{a little} ~~incurved~~ - ~~incurved~~. Heavy more
sharply serrate. ~~cap~~ & caps not so woolly
as in *Sieber* plant

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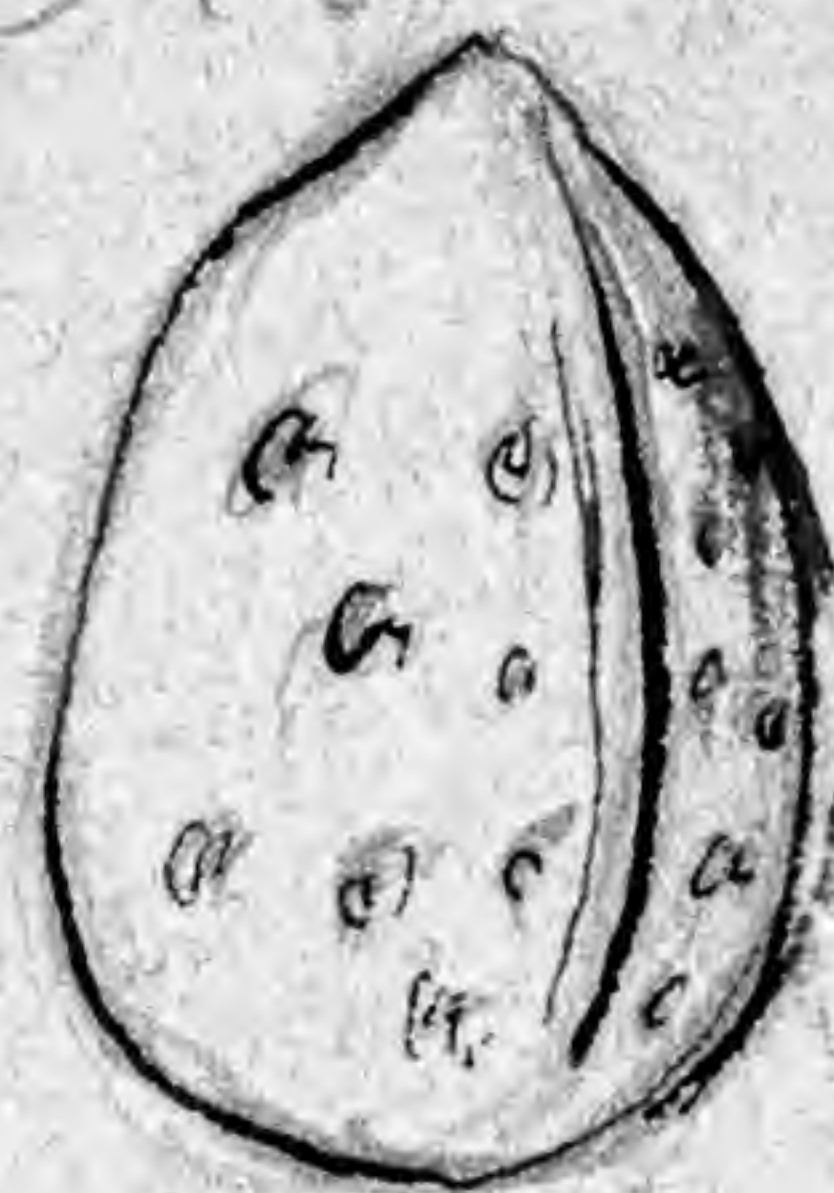
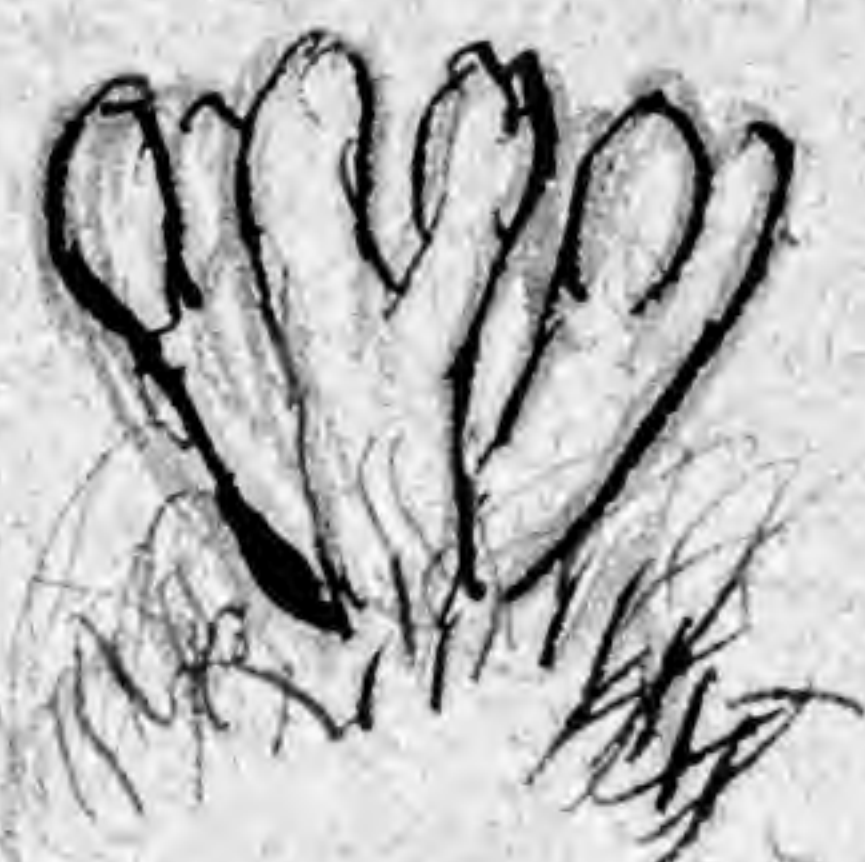
0 1 2 3 4 5 6 7 8 9 10

cm

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30

Euph. scandifolia

0.65

Euph. scandifolia Jacq. is a
western plant
perhaps a hairy var.
of *E. hypericifolia*

Euph. scandifolia Jacq.

Condor Mountains

herbaceous, villosa-tomentosa
foliis ovato oblongis, obtusis
serratis
stipulis subulatis villosis indistinctis
anthod. vix apertae ramulorum
paniculatas
rachis compressatis, tomentosis
glomerulis bilabatis late apertis
apophysis truncatis 2-tubis;
stylis fixis ad medium bifidis
brevissimis, erectis;
capsula tomentosa
seminibus ovatis laevibus
dorso solum acute angulatis
sparsim saepe sculpto-punctatis



0 1 2 3 4 5 6 7 8 9 10

cm

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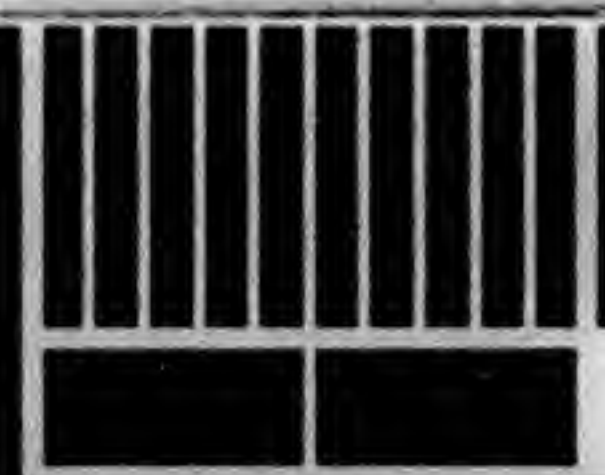


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leaves 5-6 l. l. 2-3 $\frac{1}{2}$ lat.
seed, thick, over 0.6 l. long

Euph. tomentosa Pers (Doellinger)
Senegal Hb. Born & Herb. Bernhart
are exactly the same plant



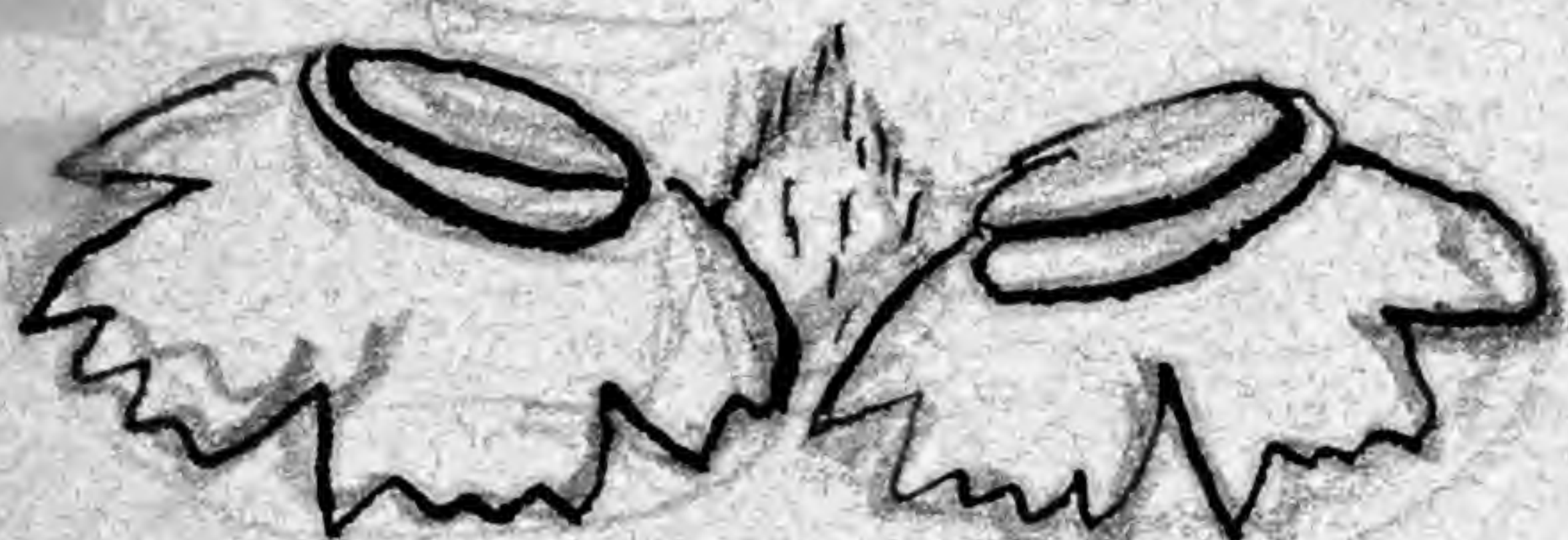
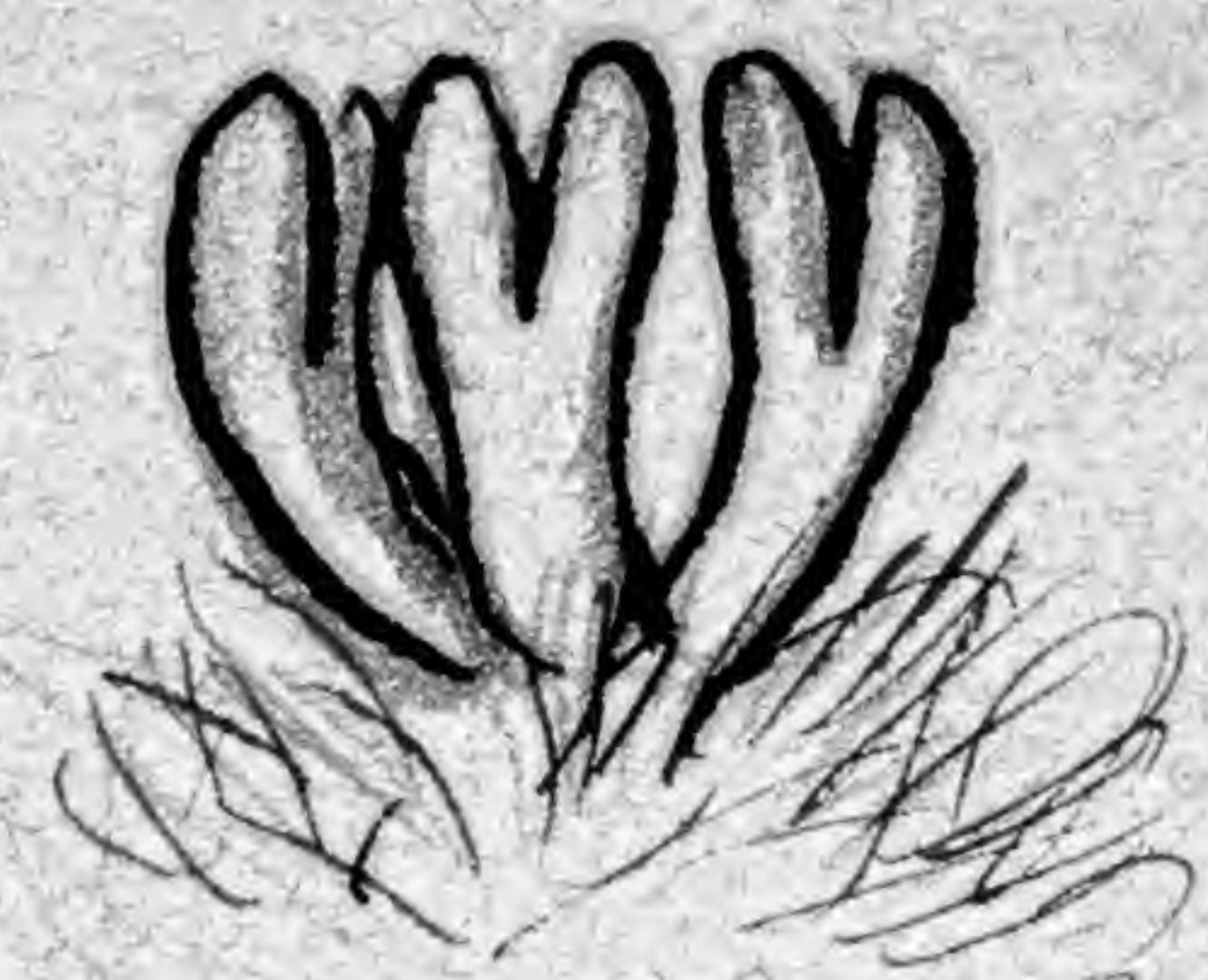
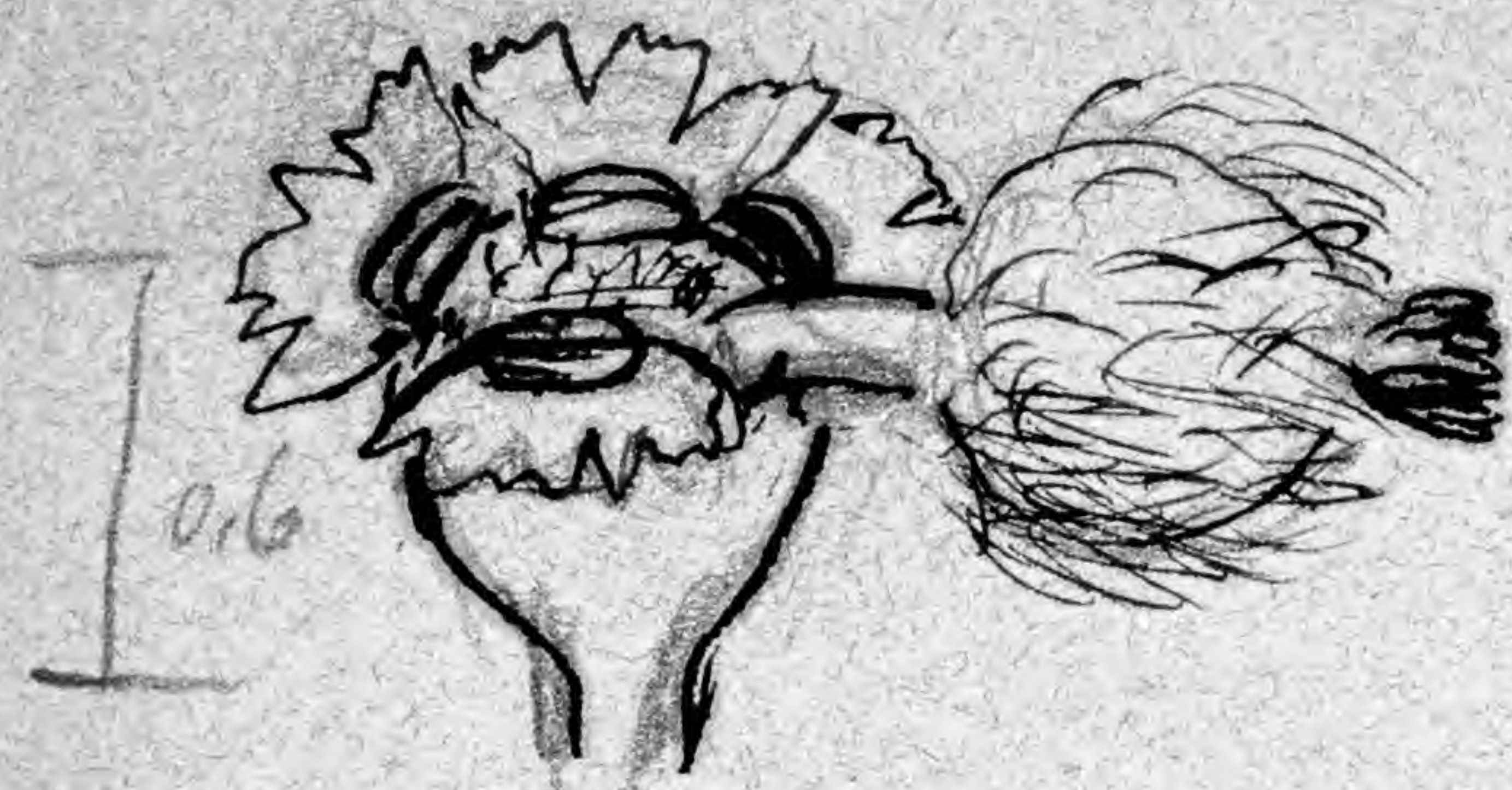
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cm

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0.65-0.7

255 *Euph. thyrsifolia* Forsk. on Lin?Ischedda, ~~Agg.~~ Arabia
on the red sea A. Rhinop

perennans e radice perperculum, lignosa
caudexque ramosa lignosa;

procumbens, villosa-pubescent
foliis e basi obtuse vix oblique
ovato-oblongis, obtusis, acute
serrulatis.

stipulis subulatis villosis, minutis
anthodis versus ~~radicem~~ apicem pseudo-
axillaribus, vix glomeratis

involucris campanulatis villosis
glabulis magnis bilabiatis compressis
appressis latis truncatis dentatis
lobis triangularibus villosulis;

~~stylis~~ pedicello fasciatis nudis
ovario capsulaque villosissima
stylis erecto-petulis brevibus
apice bilobis; seminibus ovatis

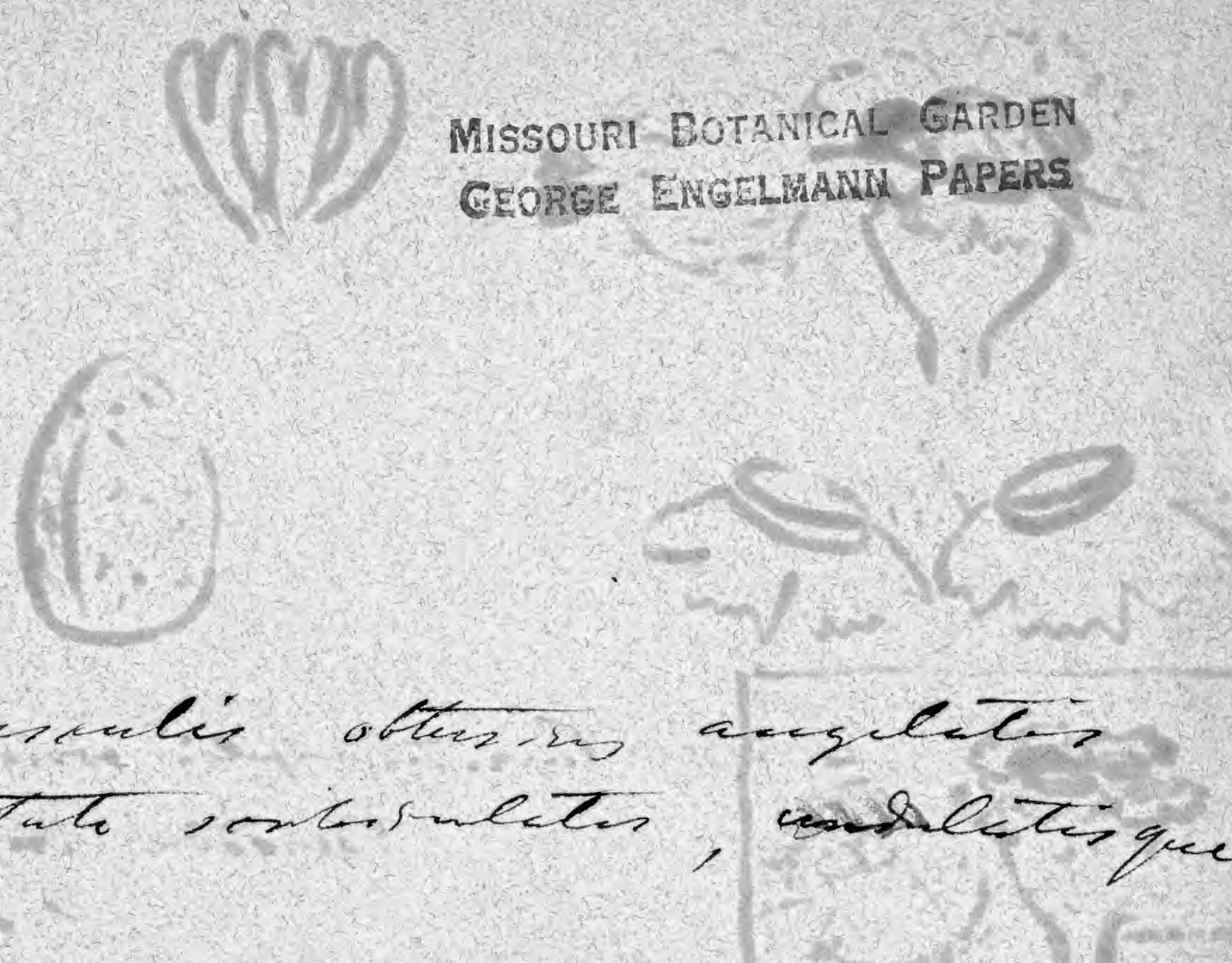


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cm

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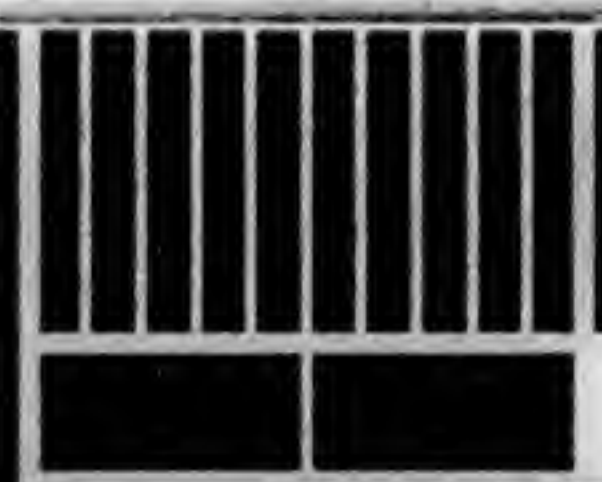


*majusculis obtusius angulatis
pinnatis serrulatis, ~~undulatis~~ que.*

"*Euph. hirta* L." *Frucht* *frucht* *Sennar*,
Kobitz, is the same plant, but
with much narrower appendages -
and yellow female ped. cell

Stems 6 inches or more in length, gray,
and the young white villous;
leaves 3-5 l. long 2-3 broad,
serrately but acutely *serrate* -
seeds 0.6-0.7 l. long, almost round,
only on the back sharp angled.

Near *E. Chamaejasme* in style, shape & apph
of involucre but 4 sharply serrate,
shape of leaves different, and seed
also different, though similar in shape
& colour.



0 1 2 3 4 5 6 7 8 9 10

cm

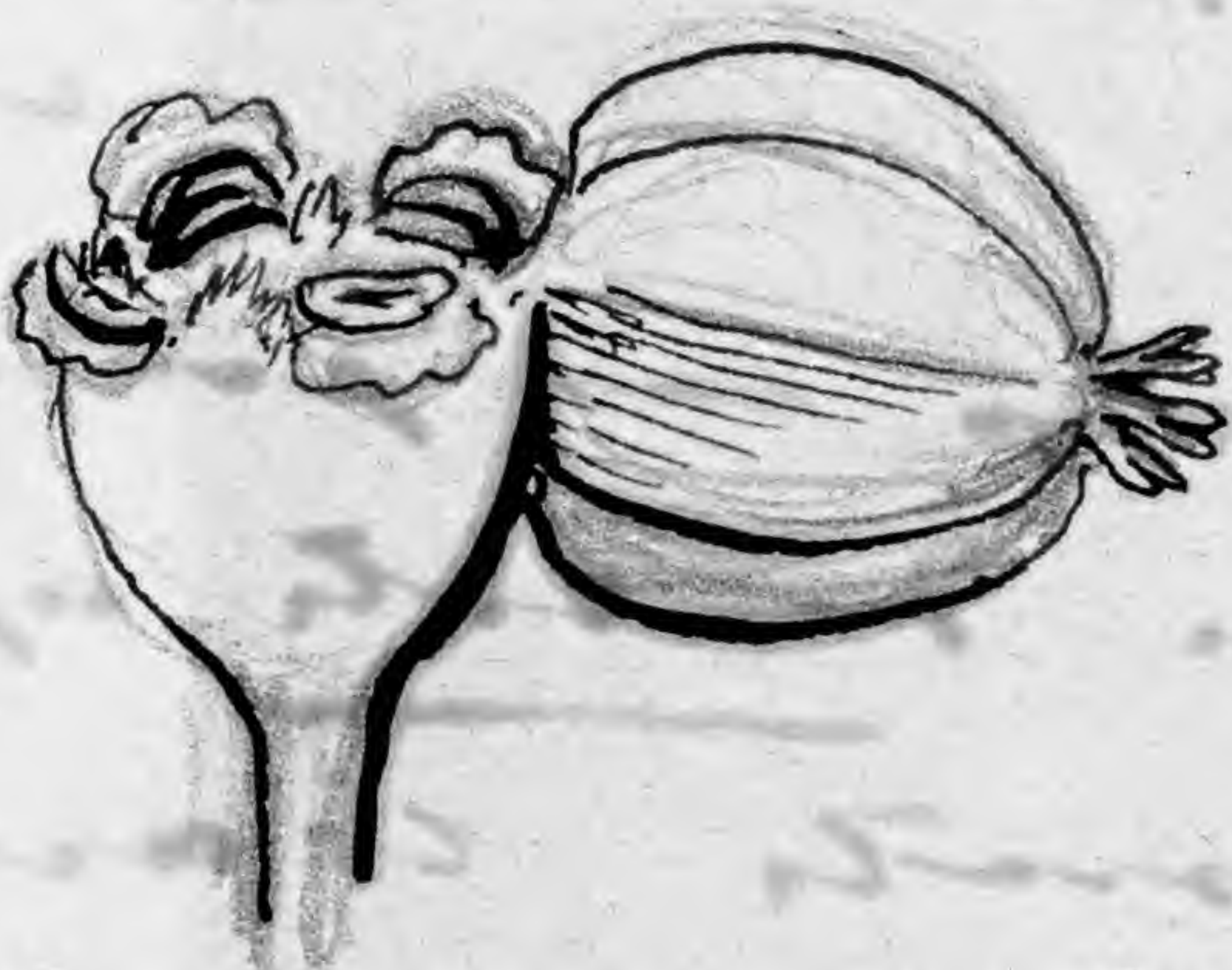
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0.5-0.55

x 0.4

Egypt
Creta
JoppeC. canescens
C. canescens

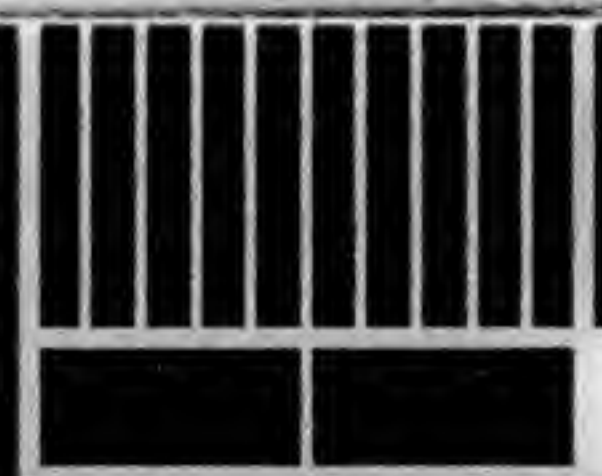
Euph. Chamaesyce glaberrima Montpellier
glandulis cyathiformibus ~~apertis~~
conduplicatis

^{arvensis}
E. Chamaesyce canescens c. basi quasi
ventris-latis pleuricis;

foliis obovatis vix oblongis cum
apice dentatis, serratis s. integris
stipulis (s. bulbatis) stipularibus

involucris subulatis vix appretatis

hemisphaericis; glandulis ^{latulitis} magnis oculis
placis s. cyathiformibus plus minus



0 1 2 3 4 5 6 7 8 9 10

cm

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appressed;.


Stylis ~~dentata~~ petalis ovario
multibrevioribus superis bifidis
capsula acuta angulata, rugulosa
seminibus ovatis minus 0.5-0.6
X 0.4 lin. ruguloso tuberculatis
angulis laevibus s. crenulatis.

α glaberrima.

β . *prelorella*

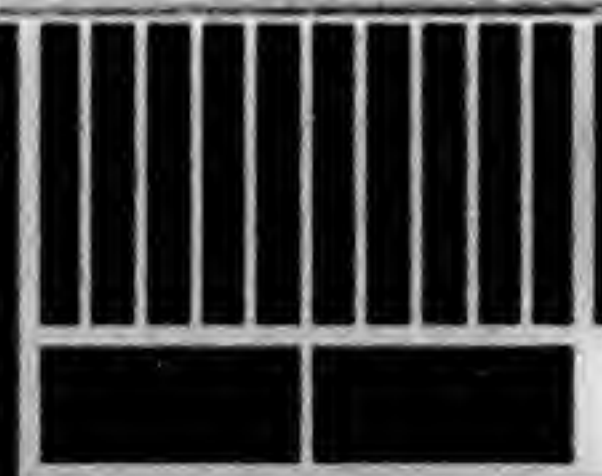
γ . *caucensis* caps. pilosis
etc

A. spicata fr. *Lecythis* has petules hairs
all over, large dentate appendages,
sharply serrate leaves

E. Camusensis fr. *Palestina*, Marsh
has seeds very little tuberculata,
almost smoothish!  0.6
no other difference!
leaves more cordate & base

E. tigris Boiss & Noe is a small leaved
E. caucensis, with verrucose tuberculate seed
tubercles running into cross ribs together, &
edges of seed often crenulate

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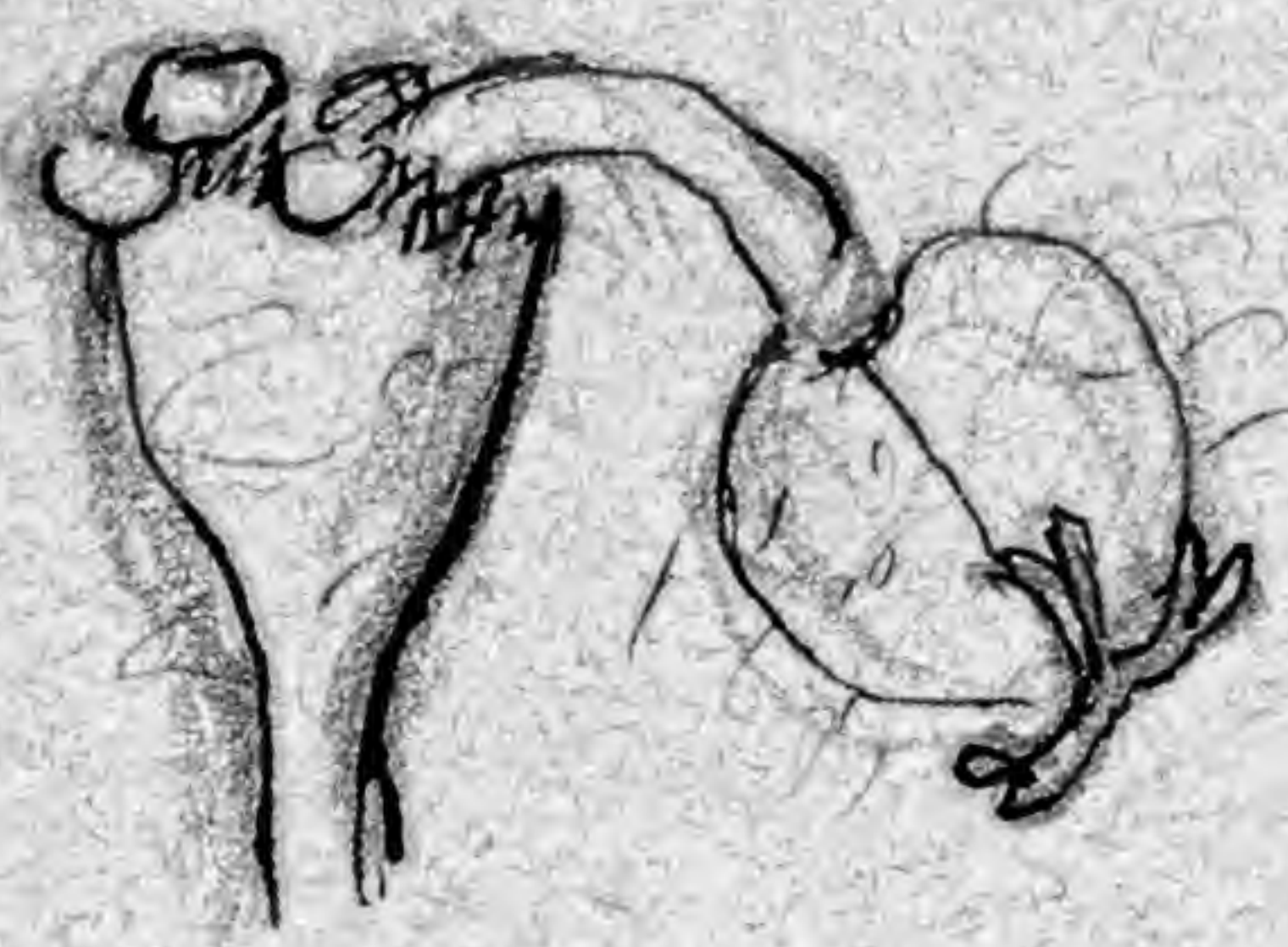
cm

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31.8.

E. Chamaesyce ~~uniflorus~~
~~obscura~~

0.6 x 0.4

Puph. Chamaesyce, not to
be distinguished from small
leaved form, of the common
Chamaesyce — but involucre
tuberculate, glands imbriculate;
seed very rough — same as
in many forms of Chamaesyce
but darkish! almost black

small
leaves oblique obovate almost
entire, with the stem hairy.

Hb. S. Braun. Shown from ?
perhaps that at Wien ?
Study ?



0 1 2 3 4 5 6 7 8 9 10

cm

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[Faint, illegible handwritten text, likely bleed-through from the reverse side of the page.]



0

1

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cm

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32

Griegg 792

S. pilosula

caps. glabra, obtusangul

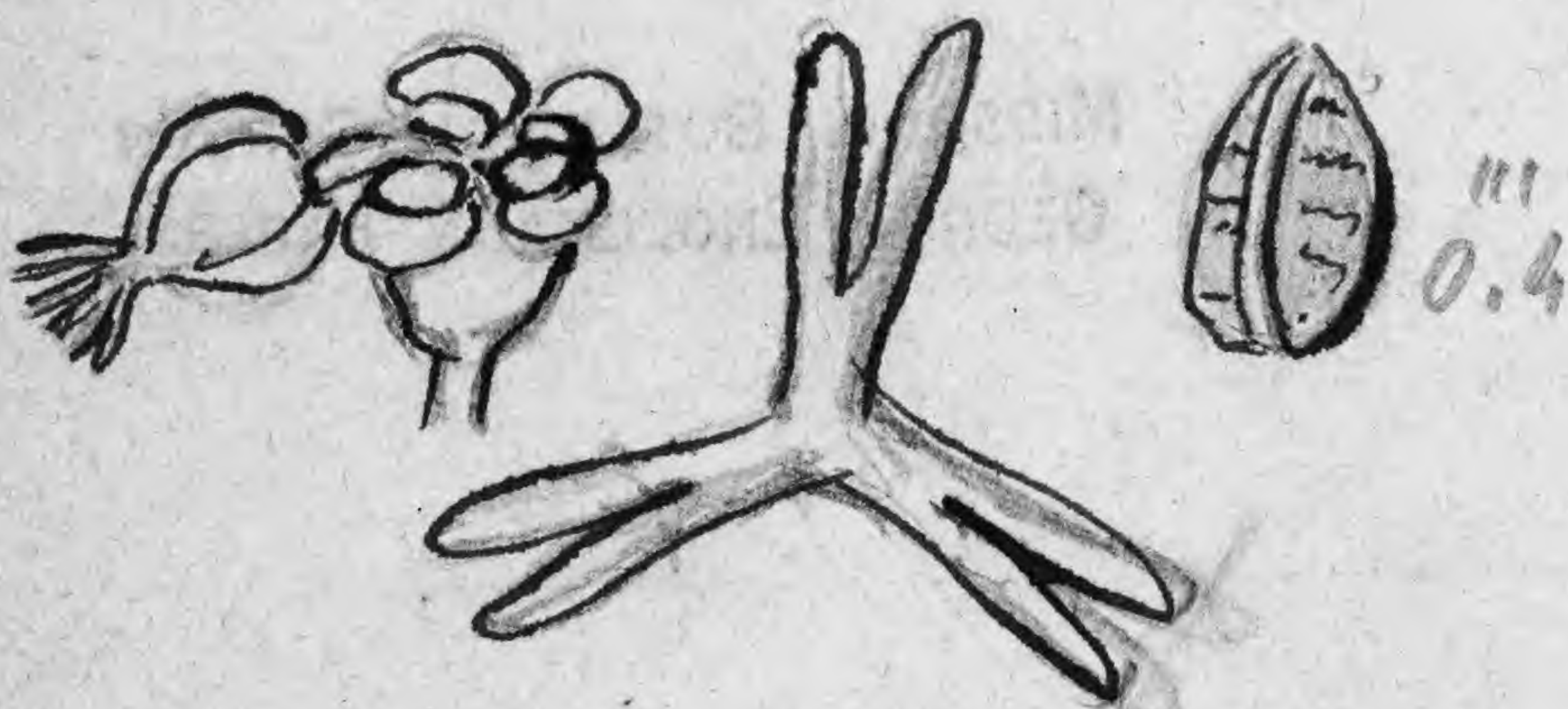
sem ovat acut angulat

indistincta tuberculata

ferrugineo rugosa

0.4 x 0.3 cm

mutat



perianth? Diffusum stipitatus
 corolla infera glabrae corollae puberulae
 pl. a basi obliq. subovata ovata -
 orbiculata argente serratis ^{utroque} pilosis
 dem nudatis
 stip. lanceolatis + subulatis
 glomeratis form. multib. app. lower
 interfol. laev. gl. 3-4 app. ^{atq.}
 orbicul. - styl. ultra med. bifidis



0 1 2 3 4 5 6 7 8 9 10

cm

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~~Ad. 1857~~
~~1857~~

6994 28

Suberectis —

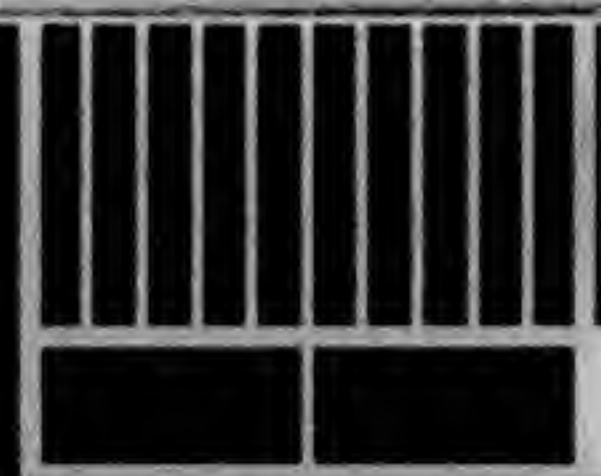
caps — see above
sem —



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Coulter 1446, Jalapa
fol. integrissimis here?



0 1 2 3 4 5 6 7 8 9 10

cm

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pilifera
Serrula



Serrula patula s. *divaricata*
caule patente piloso
folia basi vix oblique oblonga
obtusiuscula ~~subcordata~~
oblongis multifloris ^{obtusius} argenteis
serratis subhis pilosis saepe
subundis 2-5" x 1-3"
stipulis lanceolatis lanugine fimbriatis
glomeratis
appressis angustis transverse
membratis s. integris lobis lanceolatis
ovis glabris
stylis brev. patulis fere ad basin
bifidis
caps. reniformibus
1. ovate 0.8 x 0.6. angulo angulo
elevato



0 1 2 3 4 5 6 7 8 9 10

cm

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69.95

Hb. Torr

Pope

Fremont 428. (164)

Bigelow 7 2

— Cooper 2

— Donnan 2

~~Shott 2~~

Hb. E

Wright (19) 2 1850

Fremont 45-47

Gregg 520 2

55

Hb. Geo

~~(Frank 407)~~?

Gregg 2

— Munro 1

Wright

— 559. 65 (414)

— 1850 ~~(44)~~ (55) 2

Fremont

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cm

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